

Fig. 1

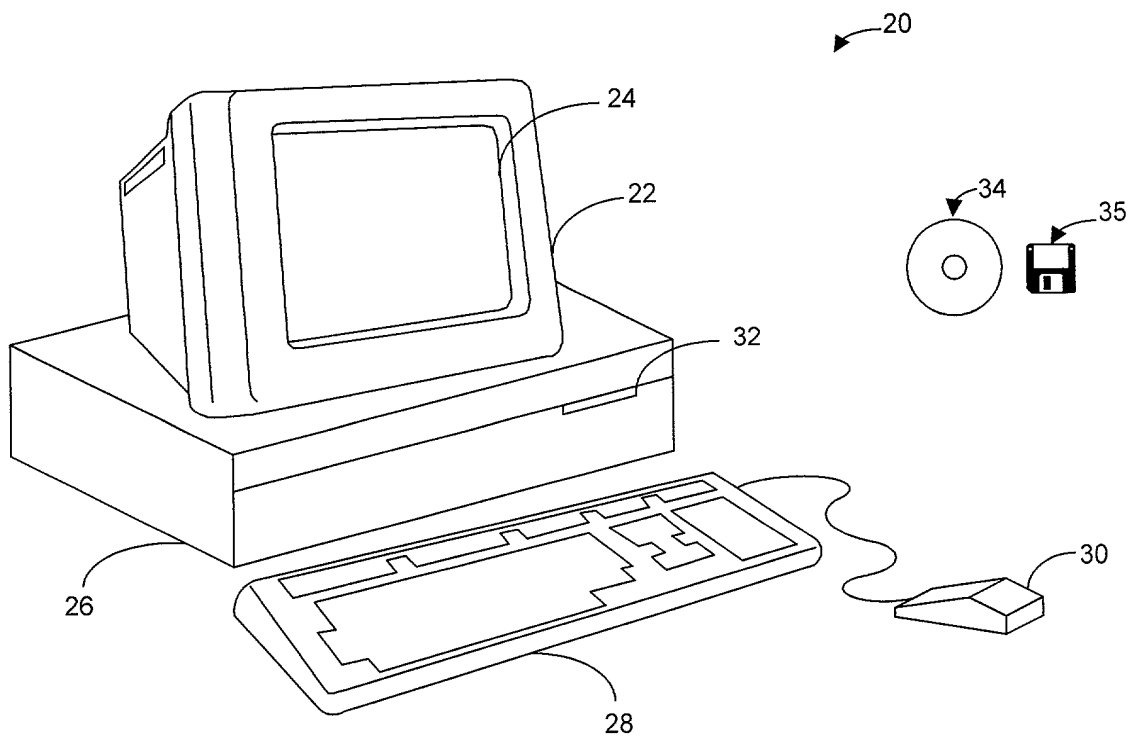


Fig. 2

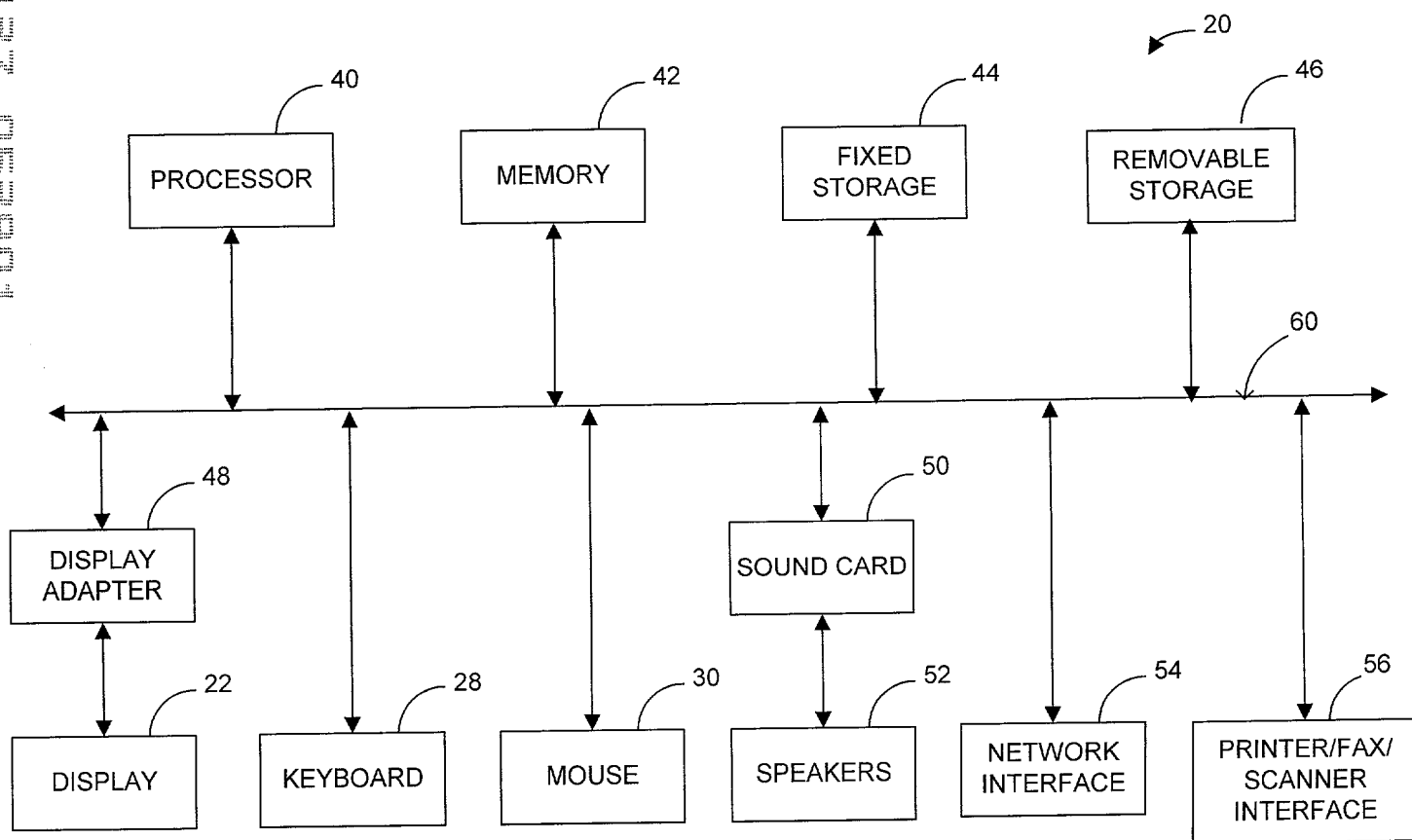


Fig. 3

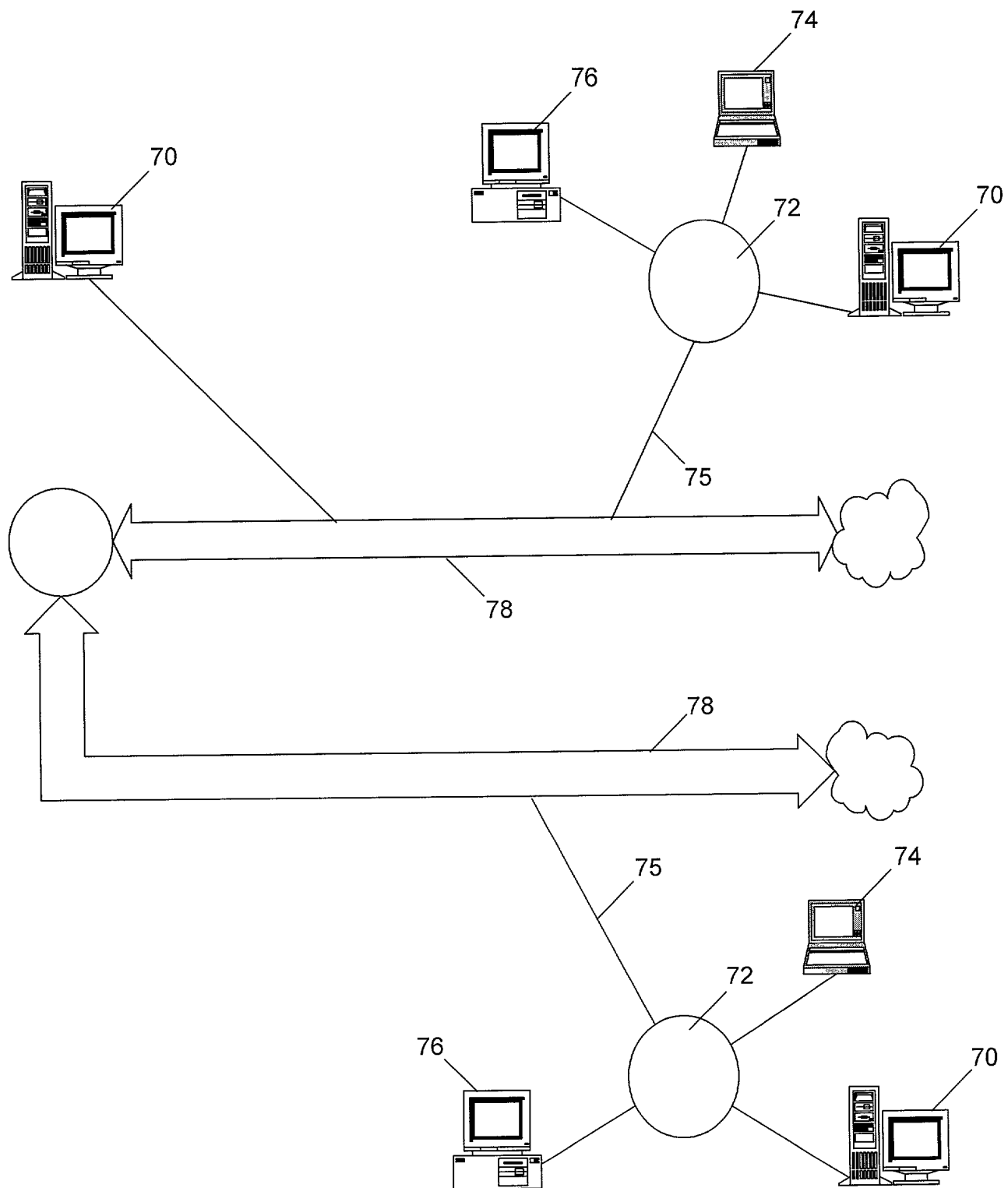


Fig. 4

AGENT

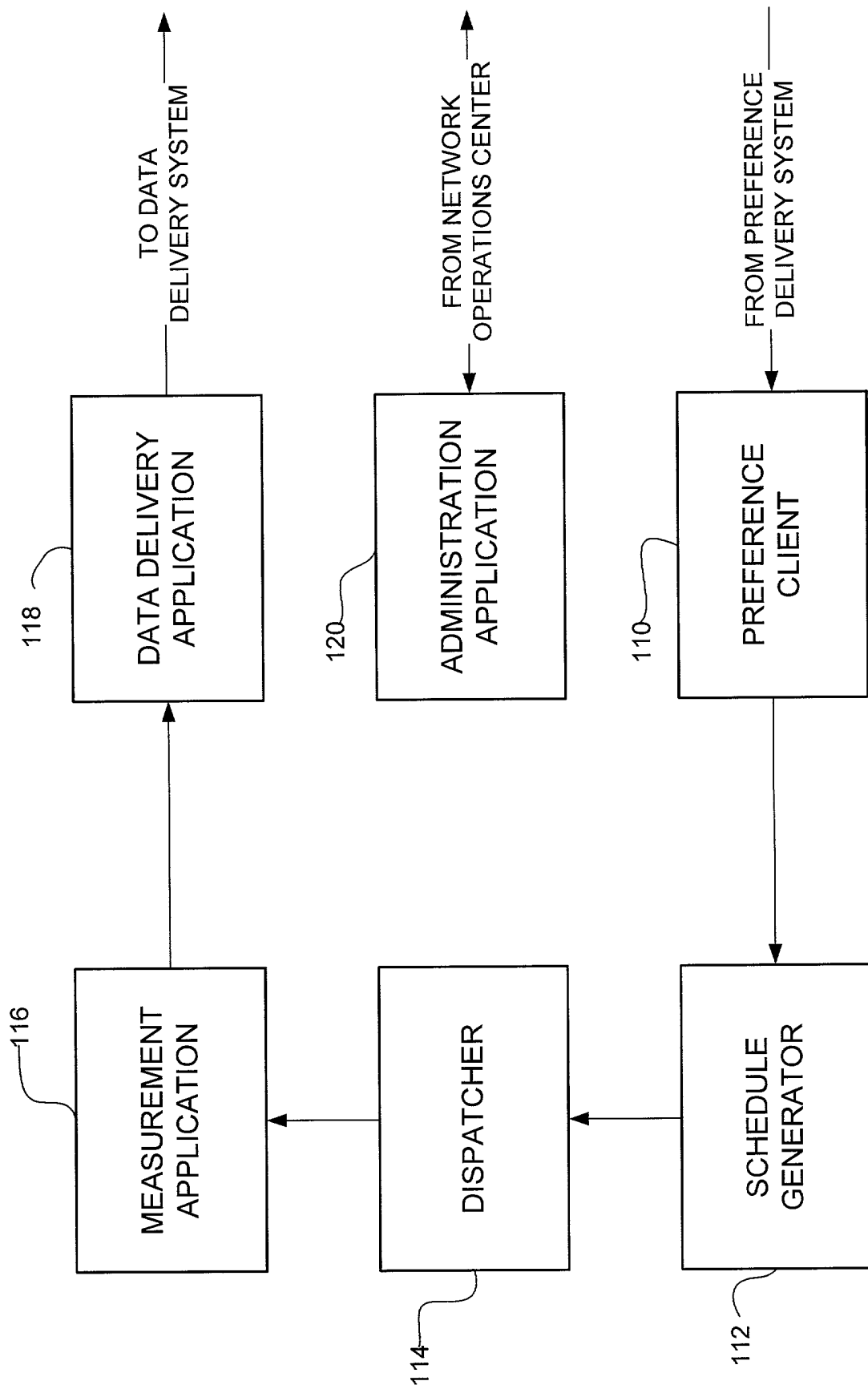


Fig. 5

130

MEASUREMENT DATA
Initial Connection
Redirection
Number of Redirects
Initial Buffering
Number of Rebuffers
Total Time of Rebuffers
Audio Packet Information
Video Packet Information
Average Frames Per Second
Frames Dropped (Video)
Average Video & Audio Bandwidth
Encoded Bandwidth
Codec Used to Encode Clip

Fig. 6

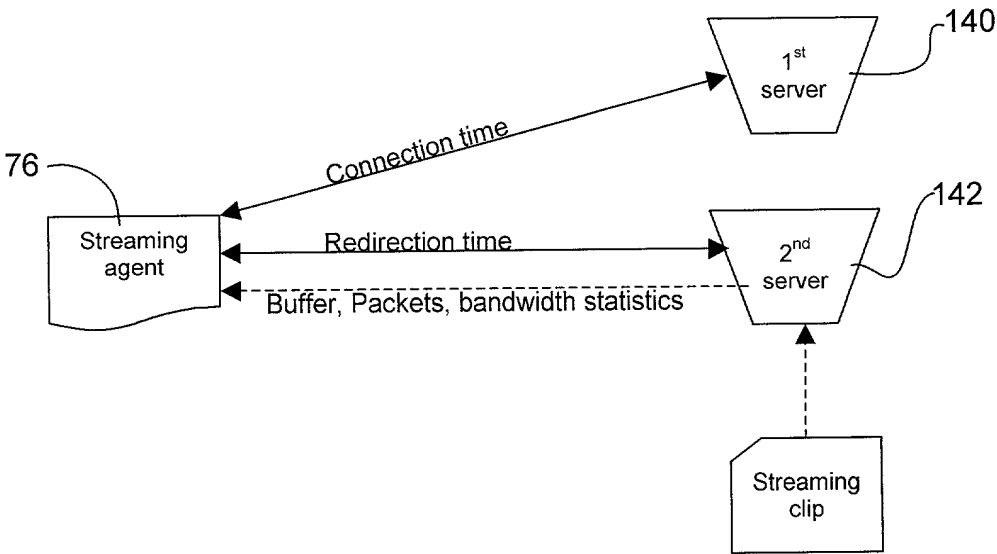


Fig. 7

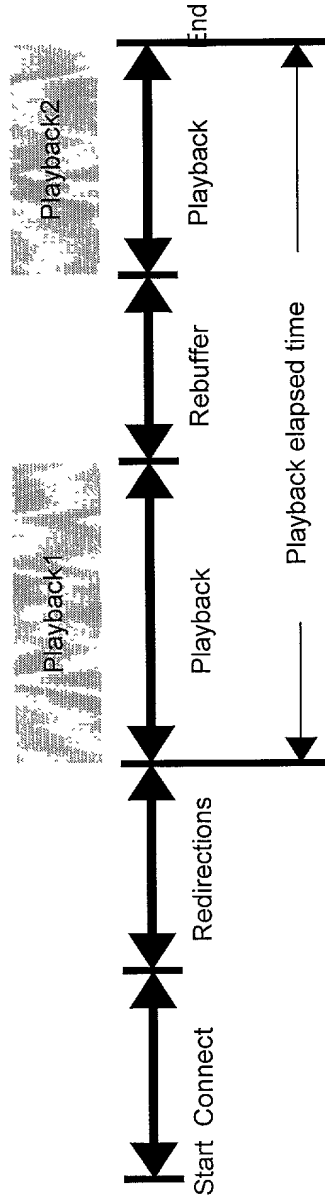


Fig. 8

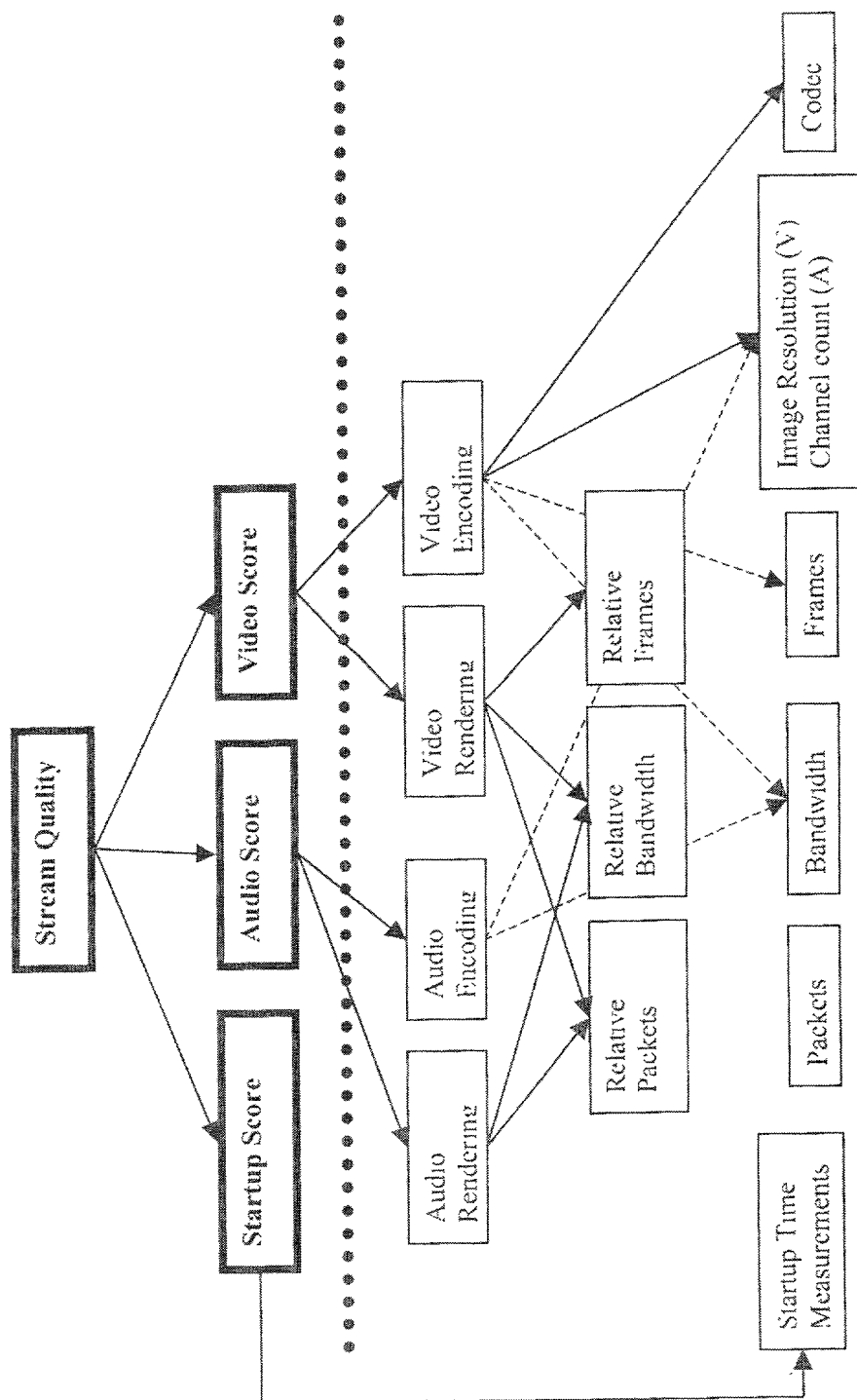


Fig. 9

9/10

Streaming Media Quality by Time History

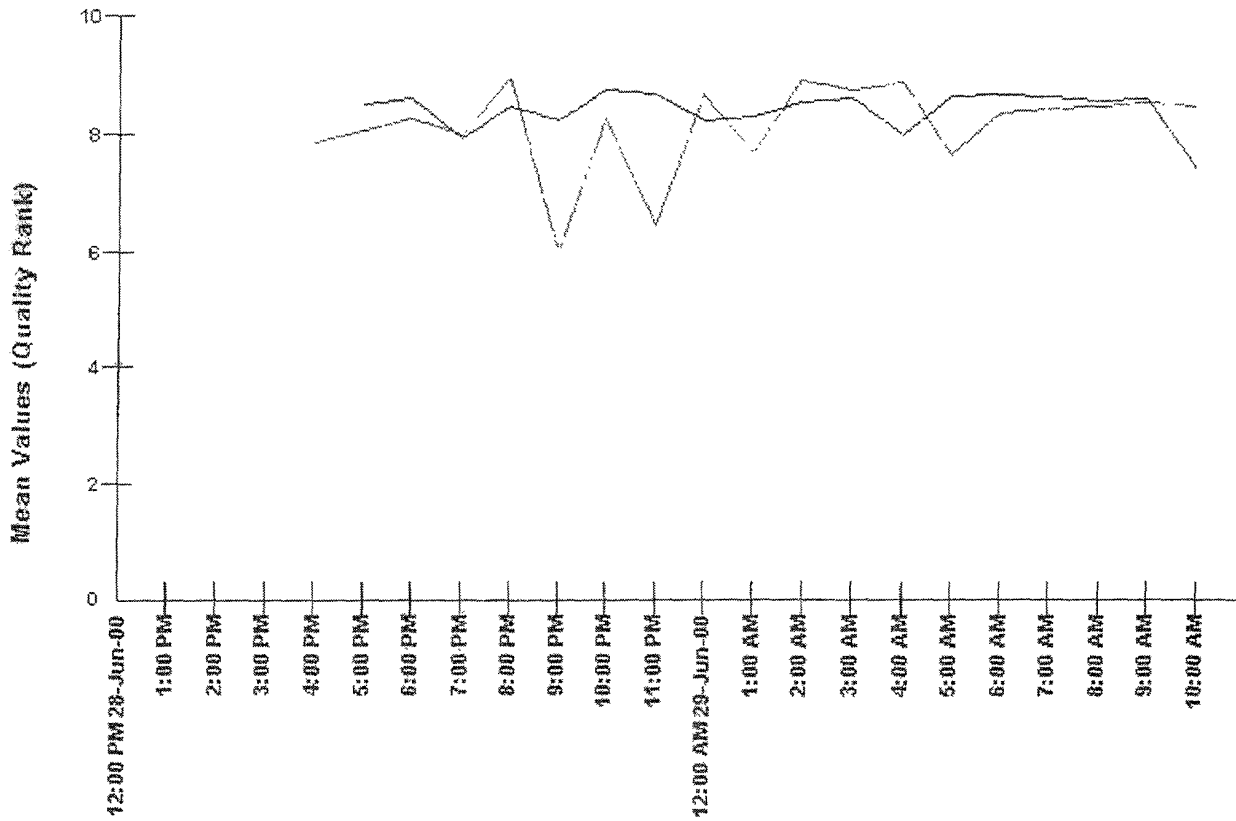


Fig. 10

Streaming Media Bandwidth by City

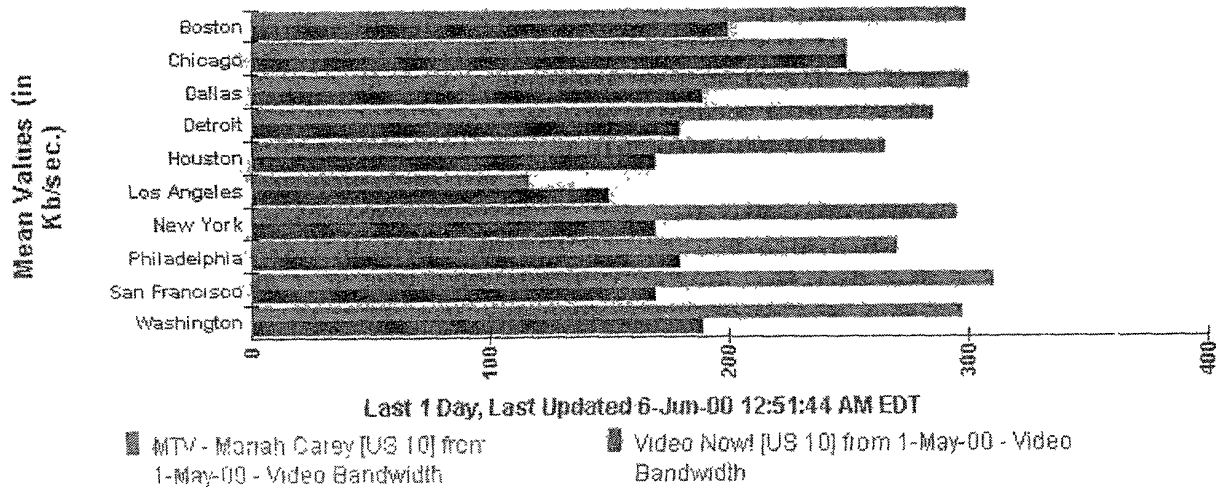


Fig. 11

DELIVERY SYSTEM SENDS
PREFERENCE FILE TO AGENT 200

SCHEDULE GENERATOR
SENDS SCHEDULE TO
DISPATCHER 202

DISPATCHER INVOKES
MEASUREMENT
APPLICATION 204

IS PREVIOUS TARGET
STILL RUNNING? 206

Yes
STOP 208

No
AGENT CONTACTS SERVER
CONTAINING TARGET STREAMING
MEDIA 210

REDIRECT TO ANOTHER SERVER IF
REQUIRED 212

START DOWNLOAD AND BUFFER
PACKETS 214

RECORD INITIAL BUFFERING TIME 216

AGENT PLAYS STREAMING CLIP 218

RECORD PERFORMANCE
MONITORS 220

WAS MEASUREMENT
SUCCESSFUL? 222

Yes
STORE DATA IN
DATA LOG FILE 224

No
STORE ERRORS
IN ERROR LOG 226

SEND DATA TO DATA DELIVERY
SYSTEM 228

Fig. 12